

United States Department of the Interior

DWR WAREHOUSE

IN REPLY

BUREAU OF RECLAMATION Mid-Pacific Regional Office 2800 Cottage Way Sacramento, California 95825-1898

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Ms. Kate Hansel CALFED Bay-Delta Program 1416 Ninth Street, Suite 1155 Sacramento, California, 95814

Subject: Restoration Plan Proposal

Dear Ms. Hansel:

In response to your 1997 Category III Request for Proposals (RFP), enclosed are 10 copies of our Liberty Island Complex & Interlinking Corridor Habitat Restoration Plan proposal. This proposal develops a comprehensive approach to integrating ecosystem restoration opportunities at the Liberty Island/Prospect Island/Little Holland Tract complex with the existing Stone Lakes National Wildlife Refuge. We request your favorable consideration of this proposal. If you have any questions regarding this proposal, feel free to contact the principal investigator as identified in the RFP.

Sincerely,

Robert F. Stackhouse

Regional Resources Manager

Enclosure

I. Executive Summary

a. Project Title: Liberty Island Complex & Interlinking Corridor Habitat Restoration Plan

Applicant Name: U.S. Bureau of Reclamation

#### b. Project Description and Primary Biological/Ecological Objective

This project is to ensure environmental restoration and preservation of the Liberty Island Complex (Liberty and Prospect Islands and Little Holland Tract) in the northwestern Delta and to formulate and evaluate potential plans for an environmental corridor that would link the Liberty Island Complex to the Stone Lakes National Wildlife Refuge. The proposed project comprises four main elements: (1) acquisition of Liberty Island by the U.S. Fish and Wildlife Service, (2) a feasibility study of environmental restoration alternatives for Liberty Island, to be conducted by the U.S. Bureau of Reclamation, (3) environmental restoration of Liberty Island by Reclamation, and (4) feasibility study of an interlinking environmental corridor between the Complex and Stone Lakes NWR, by Reclamation.

The FWS has previously proposed to establish a North Delta Unit comprising the Liberty Island Complex tracts as part of Stone Lakes NWR. Restoration of Liberty Island and establishment of the interlinking environmental corridor, together with planned restoration of Prospect Island and existing habitat at Little Holland Tract, would significantly increase priority habitats and provide benefits to priority species, including: (1) tidal perennial aquatic, (2) seasonal wetlands and aquatic, (3) shaded riverine aquatic (potentially), (4) Delta smelt, (5) Sacramento splittail, (6) winter-run chinook salmon (potentially), and (6) migratory birds. Restoration of these habitats will contribute significantly to the ecological health of the Bay-Delta system and the ability of the system to sustain healthy populations of numerous species.

#### c. Approach/Tasks/Schedule

This project will build upon actions under way by various agencies and the results of previous studies. The project encompasses acquisition, services, and construction, and provides for a range of tasks, including environmental studies and documentation, formulation of plans for environmental restoration, engineering and technical support studies to support plan formulation, and implementation of an environmental restoration plan, to include contracting, construction, and construction management. FWS has started the process for acquisition of Liberty Island, which could be completed within 1-2 years, depending on funding. The two feasibility studies proposed could be started in November 1997 and both completed by or before September 1999. Restoration of Liberty Island could be started in July 1999 and completed by September 2001.

#### d. Justification for Project and Funding by CALFED

Restoration and preservation of the Liberty Island Complex and the potential for development of an interlinking environmental corridor will substantially increased acreages of priority habitats and benefits for a broad range of fish and wildlife species. The Liberty Island Complex is of special significance because of its size, juxtaposition, and connectivity to other wetlands sites in California's Central Valley and the Valley's critical importance as part of the Pacific flyway. Ultimate development of an environmental corridor would provide a biological connection of the Liberty Island Complex to the existing boundaries of Stone Lakes NWR. Proposed restoration would help ensure long-term protection and preservation of critical habitats and greater protection for a broad range of Delta species. Federal authority and funding for the proposed initiatives have been limited. CALFED funding is required to focus efforts and to implement the Liberty Island Complex.

## e. Budget Costs and Third Party Impacts

Budget costs for the four elements of this proposal are:

Element 1, acquisition of Liberty Island	\$ 8,577,000
Element 2, feasibility study of Liberty Island restoration	1,155,000
Element 3, restoration of Liberty Island	7,120,000
Element 4, feasibility study of environmental corridor	1.121.000
Total	\$17,973,000

No third-party impacts are anticipated as a result of implementing any element of this project.

#### f. Applicant Qualifications

Reclamation has a strong capability in all aspects of water resources management and an extensive track record in wetlands development, other environmental restoration projects, and resource management issues. For its elements of the project, Reclamation would use the expertise of its staff in the agency's Technical Service Center (Denver), Mid-Pacific Regional Office (Sacramento), and Willows Construction Office. The services of expert consultants or contractors would be obtained as necessary through the use of existing Reclamation contracts.

#### g. Monitoring and Data Evaluation

Monitoring plans will be developed as part of the proposed feasibility studies (Elements 2 and 4). These plans will be designed to assess the physical and biological effects of restoration of Liberty Island and the potential development of the interlinking corridor. These plans will be closely coordinated with FWS to ensure they meet the requirements for national wildlife refuges, and with other resources agencies.

# h. Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives

This project has substantial support from a variety of governmental agencies, special-interest groups, and various publics. Project objectives are consistent with objectives of CALFED ecosystem restoration, Central Valley Project Improvement Act, and Central Valley Habitat Joint Venture Implementation Plan.

## II. Title Page

- a. Title of Project: Liberty Island Complex & Interlinking Corridor Habitat Restoration Plan
- b. Name of Applicant/Principle Investigator: U.S. Bureau of Reclamation
- c. Type of Organization: Federal Agency
- d. Tax Identification Number and/or Contractor License: Not applicable
- e. Technical and Financial Contact Person(s):

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## f. Participants/Collaborators in Implementation:

U.S. Bureau of Reclamation in cooperation with:

U.S. Fish and Wildlife Service

#### g. RFP Project Group Type(s):

Acquisition, services, and construction.

## III. Project Description

#### a. Project Description and Approach

This project is designed to help ensure environmental restoration and preservation of the Liberty Island/Prospect Island/Little Holland Tract complex in the northwestern portion of the Sacramento-San Joaquin Delta and to formulate and evaluate potential plans for an environmental corridor that will link the three-island complex to the Stone Lakes National Wildlife Refuge (NWR), about 15 miles to the northeast. The proposed project comprises four main elements: (1) acquisition of Liberty Island, by the U.S. Fish and Wildlife Service (FWS); and, to be accomplished by the U.S. Bureau of Reclamation (Reclamation), (2) a feasibility-level study of environmental restoration alternatives for Liberty Island, (3) environmental restoration of Liberty Island, and (4) a feasibility-level study of alternatives for development of an environmental corridor linking the three-island complex to Stone Lakes NWR.

Element 1: The FWS has developed a Preliminary Project Proposal for the North Delta Unit of the Stones Lakes NWR that would include Liberty and Prospect Islands and Little Holland Tract. Element 1 of this project is acquisition of Liberty Island by FWS, which is essential to both ensure and maximize environmental restoration benefits and preservation of the three-island complex (Liberty, Prospect, and Little Holland). Liberty is the largest island in the Liberty Island Complex, comprising approximately 5,200 acres of privately owned land. The island would be acquired from the willing seller for environmental restoration.

Element 2: Reclamation will conduct a feasibility-level study of environmental restoration alternatives that would best complement ongoing restoration at Prospect Island and preservation and management of high-value habitat already existing at Little Holland Tract. The evaluation will build upon the results of a reconnaissance-level study of Little Holland Tract (including Liberty Island) completed by the Corps of Engineers in January 1996. Extensive coordination with FWS and broad-based public outreach will help ensure development of a restoration plan to best meet needs in the Delta consistent with the North Delta Unit plan and other programs. This study element will be conducted concurrently with acquisition of Liberty Island.

Element 3: Reclamation will restore Liberty Island, based upon the results of Element 2 (feasibility study). Construction would be initiated following completion of the feasibility study and would take about 2 years to complete.

Element 4: Reclamation will conduct a feasibility study to formulate and evaluate alternatives for an environmental corridor that would link the Liberty Island Complex to Stone Lakes NWR. Conceptual plans are for a corridor that would generally parallel existing Delta waterways between the island complex and the refuge. Restoration alternatives would focus on opportunities to increase and improve terrestrial and riparian habitat to benefit a variety of species, including migratory birds and other target species that would be identified. Like the feasibility study for Liberty Island, this study would encompass comprehensive environmental analysis and documentation. An extensive public outreach program would be conducted to help

ensure the participation of a broad range of stakeholders, including landowners, special-interest groups, governmental agencies, and the general public. This study would be accomplished concurrently with Element 2, the Liberty Island feasibility study. (Alternatively, the study could be started upon completion of Element 2 and accomplished concurrently with Element 3, restoration of Liberty Island.)

#### b. Location and/or Geographic Boundaries of Project

This project is in the northern portion of the Delta (Sacramento River watershed) and encompasses portions of Yolo, Solano, and Sacramento Counties. The Liberty Island Complex comprises Liberty and Prospect Islands and Little Holland Tract, which abut the lower portion of the Sacramento River Deep Water Ship Channel above its mouth at Cache Slough. The proposed interlinking corridor would extend along existing Delta waterways from the Complex east-northeasterly to the Stone Lakes NWR. Figure 1 shows the project location and boundaries.

#### c. Expected Benefits

Together the three islands comprise about 8,000 acres, which have been historically farmed. Liberty Island and Little Holland Tract are located within the Yolo Bypass, an operational feature of the Sacramento River Flood Control Project. Flooding of lands within the bypass provides relief from floodwaters that may otherwise overtop the levees that protect urban areas along the Sacramento River.

The priority habitats that would be improved by restoration of Liberty Island are tidal perennial aquatic, seasonal wetlands and aquatic, and (potentially) shaded riverine aquatic (SRA). Restoration of these habitats would benefit a diverse variety of fish and wildlife, including the priority species Delta smelt and Sacramento splittail, (potentially) winter-run chinook salmon, and migratory birds. Fish, wildlife, and waterfowl common to the Delta would also benefit.

Planned restoration at Prospect Island will significantly increase tidal perennial aquatic habitat and benefit Delta smelt and Sacramento splittail as well as other fish and wildlife species common to the Delta. It will also provide SRA habitat and benefit salmonids and other ripariandependent species.

Little Holland Tract flooded in 1983 and since that time has developed and matured as a tidal-influenced wetland. As such, the area provides extensive benefits to priority species, including smelt and splittail. Due to the high-value habitat that exists and will increase naturally, additional restoration measures are not currently being contemplated.

The planned corridor would potentially link fragmented portions of habitat restoration at the three-island complex, Stone Lakes NWR, and the Cosumnes River Preserve. Elimination of existing habitat discontinuities will increase suitability for aquatic and terrestrial species.

Stressors affecting priority species and habitat in the project area are floodplain and marshplain isolation, including habitat fragmentation and loss of seasonal and tidal wetlands, and land use

changes. Agricultural development as well as the development of flood control facilities, levee construction, and other land use changes have contributed significantly to the loss or degradation of priority habitats in the project area.

Restoration of these habitats will contribute significantly to the ecological health of the Bay-Delta system and the ability of the system to sustain healthy populations of numerous species. Restoration of the Liberty Island Complex and development of an interlinking environmental corridor to Stone Lakes NWR will provide broad benefits through improvement of aquatic, wetland, and terrestrial wildlife habitats and populations.

Restoration of the Liberty Island Complex would help meet the objectives of the Central Valley Habitat Joint Venture Implementation Plan, a component of the North American Waterfowl Management Plan. These plans call for the restoration of 19,500 acres of delta wetland in the Delta Basin and 9,745 acres in the Yolo Basin. Restoration of these three Delta islands would provide well over 7,000 acres of wetlands.

#### d. Background and Biological/Technical Justification

The project area for the Liberty Island complex covers a diverse ecosystem of lacustrine wetland habitats with associated palustrine wetlands. The islands have been historically farmed, and in recent years levees surrounding the islands have been breached, leaving much of the area inundated by water and subject to tidal action.

FWS is proposing to add the island complex to the Stone Lakes NWR through Federal agency transfers. As outlined in the FWS' preliminary project proposal, the additional lands would provide further opportunities to (1) protect shallow water wetlands and riparian habitats and (2) implement recovery actions for endangered and threatened fish, avian, and animal species. Consistent with the proposed addition, various Federal agencies have undertaken actions concerning acquisition and restoration of the islands.

Prospect Island: The Corps of Engineers has been authorized to plan, design, and construct the restoration of wetlands at Prospect Island under its "Section 1135" program. The California Department of Water Resources is participating in the project as the Corps' non-Federal sponsor. The Corps expects to complete in December 1997 its Project Modification Report, which will identify an array of possible restoration scenarios for the island and identify a recommended plan. Following approval of the plan, the Corps will conduct its plans and specifications phase. Project construction could be initiated in August 1998 and be completed in September 1999.

Reclamation has been involved with Prospect Island since 1993, when Congress directed Reclamation to purchase the island for restoration by the Corps. Using a funds source authorized under the Central Valley Project Improvement Act, Reclamation purchased the northern portion of the island (about 1,235 acres) in January 1995. The southern portion of the island (about 340 acres) is owned by the Port of Sacramento, which previously designated this land for disposal of dredge spoils. (The Port has indicated that it intends to submit an RFP for Category III funding for environmental restoration of its land.)

Flooding in March 1995 and again in January 1997 resulted in levee breaches on Prospect Island, both on Reclamation land and Port of Sacramento land. Levee repairs necessitated by the 1995 flooding were completed in 1996. Reclamation is pursuing levee and associated repairs (on Reclamation land) necessitated by the 1997 flooding so the Corps can proceed with its restoration project. When the Corps completes the project, Reclamation intends to transfer jurisdiction and management of Prospect Island to FWS.

Little Holland Tract: The Corps is in the process of acquiring Little Holland Tract pursuant to direction and funding provided by Congress in 1995. Upon completion of acquisition, the Corps proposes to transfer jurisdiction and management of Little Holland Tract to FWS.

Liberty Island: Under this RFP, FWS would acquire Liberty Island and Reclamation would (1) conduct a feasibility study for restoration of the island and (2) restore the island. FWS would manage the restored island as part of the North Delta Unit of Stone Lakes NWR.

FWS is currently in negotiations with the Liberty Island landowner, who has indicated his willingness to sell the island and offered an initial asking price of \$8,550,000. Appraisal to Federal standards is ongoing. This RFP proposal is for a 1-year acquisition of the island, based on a cost of \$8,577,000 (\$8,550,000 initial asking price plus \$27,000 for NEPA compliance and administrative costs incurred by FWS). FWS is submitting an RFP for acquisition of Liberty, which could be accomplished either in 1 year or 2 years. Acquisition of the island over 2 years is compatible with restoration of the island as presented here, but would alter the schedule outlined in this RFP.

Development of a restoration plan would build upon a reconnaissance-level evaluation completed by the Corps in its January 1996 reconnaissance report on Little Holland Tract (which included Liberty Island). The reconnaissance report presented five alternative plans and identified the "Integrated Plan" as the best plan. The Integrated Plan called for construction of a cross levee that would divide the island in half at about sea level elevation. The area north of the cross levee would be developed as seasonal and permanent wetlands, and agricultural reserve for waterfowl; the area south of the cross levee would be essentially unmanaged, with large areas of open water and mudflats.

The Corps report recommended acquisition of both Little Holland Tract and Liberty Island and identified the need for a 2-year feasibility study of possible restoration plans for Liberty. The Corps is pursuing acquisition of Little Holland Tract; however, Congress has not provided funds to the Corps for either acquisition or restoration of Liberty Island.

Interlinking Corridor to Stone Lakes NWR: An environmental corridor for improvement of riparian and terrestrial habitat would provide an important link between the Liberty Island Complex and the existing boundaries of Stone Lakes NWR and maximize environmental benefits. A feasibility evaluation would identify potential corridor alternatives and habitat improvements and quantify environmental benefits. FWS has indicated its support for Reclamation's proposal for formulation and evaluation of an interlinking corridor. Development of a corridor would be dependent upon the results of the feasibility study and funding.

Restoration and preservation of the Liberty Island Complex and the potential for development of an interlinking corridor will substantially increase acreages of priority habitats and benefits for a broad range of fish and wildlife species. The island (wetland) complex is of special significance because of its size, juxtaposition, and connectivity to other wetlands sites in California's Central Valley and the Central Valley's critical importance as part of the Pacific flyway. Ultimate development of an environmental corridor would provide a biological connection of the Liberty Island Complex to the existing boundaries of Stone Lakes NWR. Proposed restoration would help to ensure long-term protection and preservation of critical habitats and greater protection for a broad range of Delta species.

#### e. Proposed Scope of Work

The proposed scope of work is divided into the four elements previously described. Table 1 outlines specific tasks and deliverables associated with each of the four elements.

Table 1 - Scope of Work

Task	Summary Description
Element 1 - Acquistion of Liberty Island	Acquisition of Liberty Island would be accomplished by FWS as detailed in its RFP.
Element 2 - Feastbility study of Liberty Island Restoration Plan	
Program management, coordination, outreach	Program management and coordination to define and oversee accomplishment of the scope of work, schedule, and budgets; coordination with various Federal, State, and local agencies, special-interest groups, and individuals, including landowners; outreach to coordinate study scope, progress, and results with the public, including public notices, development of information materials, public workshop or meeting, and preparation of responses to public inquires.
Formulation of restoration alternatives	Formulation and evaluation of restoration alternatives, to include previous studies and potential measures or alternatives identified as a result of outreach efforts.
Engineering studies and analyses	Studies and analyses necessary to support plan formulation and evaluation, including but not limited to surveys and mapping; hydrologic evaluations; hydraulic analyses necessary for evaluation of alternatives and preliminary designs and cost estimates; search and review of geotechnical studies, soils analysis, and field investigations; and preliminary designs and cost estimates.
Environmental studies and analyses	Studies, analyses, and activities necessary to comply with NEPA/CEQA (including Endangered Species Act), including identification of baseline conditions, evaluation of environmental effects of the various restoration alternatives, and analysis of mitigation needs; coordination with FWS, National Marine Fisheries Service, California Department of Fish and Game, and others as necessary and the conduct by them of necessary studies or reports; Class II surveys of cultural resources.

Feasibility report	Preparation/review of a feasibility report to present the results of the formulation and evaluation of restoration alternatives, including documentation of technical studies.
Environmental documentation (NEPA/CEQA)	Preparation/review of appropriate NEPA/CEQA, to include reports or other documentation prepared by FWS or others.
Monitoring plan	Development of a monitoring plan designed to assess the effectiveness and quantification of restoration, including establishment of habitats and subsequent habitat use. The plan will be developed in close cooperation and coordination with FWS to ensure that it will meet requirements for national wildlife refuges.
Element 3 - Restoration of Liberty Island	-
Planning, engineering and design	Preparation of final designs for the selected restoration plan, development of plans and specifications, and the bid/contracting process for construction of the project.
Direct construction	Construction/development of all the features of the selected restoration plan.
Construction management	Management/administration of contract in accordance with FAR (Federal Acquisition Regulations) and Reclamation policy from award to completion, inspections, health and safety requirements, construction documentation.
Element 4 - Feasibility study of interlinking environmental corridar	Similar to Element 2; formulation of alternatives would include development of a linking corridor and management strategy for eliminating tragmentation of restored habitat, technical design and related activities to support corridor development, and environmental evaluation of existing conditions and need for additional restoration in alternative corridors.

## f. Monitoring and evaluation

Monitoring plans to assess the physical and biological effects of restoration of Liberty Island and potential development of an interlinking environmental corridor will be developed as part of the feasibility-level evaluations (Elements 2 and 4). These plans will be closely coordinated with FWS to ensure they meet the requirements for national wildlife refuges, and with other resource agencies and groups including National Marine Fisheries Service, California Department of Fish and Game, and California Department of Water Resources. The plans will be developed also to ensure coordination, compatibility, and potential integration with monitoring and evaluation at other sites, particularly Prospect Island and Little Holland Tract.

#### g. Implementability

Reclamation has acquired Prospect Island, and willing landowners/sellers have been identified for Little Holland Tract and Liberty Island. Reclamation, FWS, and the Corp have undertaken various efforts related to island restoration. This proposal provides a comprehensive focal point and linkage method for all restoration efforts, enabling direct resolution of issues, maximizing environmental benefits, and increasing implementability of the project.

## IV. Costs and Schedule to Implement Proposed Project

#### a. Budget Costs

This project requests funds for acquisition, services, and construction. A total of \$8,577,000 is requested for acquisition (Element 1), \$2,276,000 for services (Elements 2 and 3), and \$7,120,000 for construction (Element 4). The total cost for the four elements is \$17,973,000 Table 2 is a breakdown of costs by major tasks for each of the four elements.

Table 2 - Cost Breakdown

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (Gen, Admin & Fee)	Service Contracts	Material and Acquisi- tion Contracts	Misc. and Other Direct Costs	Total Cost
<u>ACOUISITION</u>							
Element I - Acquisition of Liberry Island							
Administrative costs and NEPA documentation			)				27,000
Fee title					L		8,550,000
TOTAL							8,577,000
SERVICES  Element 1 - Feasibility study of Liberty Island Restoration Plan							
Program manage- ment, outreach, plan formulation	4 ,170	152,500	125,900			32,000	310,400
Engineering & technical services	4,845	193,600	170,000	53,300		40,400	457,300
Environmental studies & analyses	1,530	62,100	54,800	52,000		8,800	177,700
Feasibility report & NEPA/CEQA documentation	2,340	98,600	91,000			20,000	209,600
TOTAL	12,885	506,800	441,700	105,300		101,200	1,155,000

CONSTRUCTION							
Element 3 - Restoration of Liberty Island							
Final designs, plans & specs, contracting	10,400	520,000	354,000	5,000	22,000	85,000	986,000
Direct construction					5,531,000		5,531,000
Construction management	8,840	288,000	145,000	50,000	10,000	110,000	603,000
TOTAL							7,120,000
SERVICES							
Element 4 - Feasibility study of environmental corridor							
Program manage- ment, outreach, plan formulation	4,525	166,300	136,100			11,000	313,400
Engineering & technical services	3,120	132,000	119,500	62,000	250	30,050	343,800
Environmental studies & analyses	1,355	54,300	47,600	54,000		8,900	164,800
Feasibility report & NEPA/CEQA documentation	3,465	145,000	134,000			20,000	299,000
TOTAL	12,465	497,600	437,200	116,000	250	69,960	1,121,000

Note: The construction costs outlined above (Element 3) are based on estimates for the "Integrated Plan" as presented in the Corps of Engineers January 1996 reconnaissance report on Little Holland Tract.

The Corps of Engineers has been provided limited authority and funding for studies and acquisition at Little Holland and Liberty Islands. Additional CALFED funding is required to focus efforts and implement the Liberty Island Complex. The proposal has been broken into elements to facilitate incremental funding if required. Under the proposal, Reclamation will work to develop funding partnerships as appropriate.

#### b. Schedule Milestones

Table 3 outlines a general milestones schedule for each of the four project elements.

Table 3 - General Milestones Schedule

Activity/Milestones	Start Date	Completion Date
Element I - Acquisition of Liberty Island	Ongoing	1998
Element 2 - Feasibility study of Liberty Island restoration plan		
Outreach, plan formulation, technical and environmental analyses	November 1997	January 1999
Outreach, feasibility report & NEPA/CEQA documentation	November 1997	June 1999
Element 3 - Restoration of Liberty Island		
Final designs, plans & specs, contracting	July 1999	March 2000
Construction	April 2000	September 2001
Element 4 - Feasibility study of river corridor		
Outreach, plan formulation, technical & environmental analyses	November 1997	March 1999
Outreach, NEPA/CEQA documentation	November 1997	September 1999

#### c. Third Party Impacts

No third-party impacts are anticipated as a result of implementing any element of this project. The scope of the proposal covers significant issues, however, particularly in the formulation and evaluation of restoration plans for Liberty Island and for the potential development of an interlinking environmental corridor between the Liberty Island complex and Stone Lakes NWR. Efforts will include extensive coordination with the broad range of stakeholders within or affected by the Delta and a broad-based public outreach program to best ensure active participation and development of the best possible restoration proposals to meet the needs of all affected publics.

The feasibility study for restoration of Liberty Island will evaluate the potential for any adverse hydraulic or hydrologic effects from restoration of Liberty to adjacent lands. Prospect Island was flooded in 1995 as a result of levee breaches along Miner Slough along both Reclamation and

Port of Sacramento land. As a result of the flooding on Prospect, two landowners on Ryer Island, immediately east of Prospect, have filed claims against the Government for crop damages in 1995 and 1996 due to seepage from Prospect Island and under Miner Slough. Monitoring data collected to date indicate that the source of any seepage on Ryer Island was Miner Slough, not the flooding of Prospect Island. The suits are expected to be heard in court in fall 1997.

#### V. Applicant Qualifications

The Bureau of Reclamation has a strong capability in all aspects of water resources management. Reclamation has an extensive track record in wetlands development and other environmental restoration projects as well as water supply and resource management issues. Reclamation's long history and development as a resource management agency provide an unmatched capability to understand the diverse range of stakeholder viewpoints.

Table 4 summarizes the expertise and experience of key individuals who will participate in this project. Reclamation will accomplish the efforts outlined in this RFP with Reclamation staff, including resources at its Mid-Pacific Regional Office (MP), Sacramento; Technical Services Center (TSC), Denver; and Willows Construction Office, in close coordination with the FWS and other Federal, State, and local agencies. Reclamation may obtain the services of consultants, contractors, and subcontractors to accomplish specific tasks, consistent with State and Federal regulations and requirements. Acquisition of services would include use of existing Reclamation Indefinite Quantities Contracts.

Table 4 - Applicant Qualifications

Individual	Qualifications
Thomas E. Beddow	Ecologist/wildlife biologist, TSC, providing expert technical assistance in the development and analysis of wetland and riparian habitats, wetland and terrestrial wildlife resources, and other environmental resources. Team Leader of Wildlife and Vegetation Working Group for Snake River Resources Project, and Reclamation representative on Federal Interagency working group for coordinating ongoing Federal agencies' wetlands research and development activities, including preparation of "Guide for Evaluating the Success of Restored and Established Wetlands."
Thomas Bellinger	Technical specialist, TSC, in watershed management, drought/supply assessment, river/reservoir simulation modeling, and precipitation/runoff relationships. Involved in several projects involving analysis/planning of small stream corridor restoration, including John Day River Basin and Willamette River Basin in Oregon. Previous experience with FWS on studies of wetlands, water quality analysis, fishery concerns, water right concerns, and wetland restoration activities.
Jimmy Goodwin	Registered engineer, MP, with 20 years' experience in analysis, design, and project management of a broad range of facilities, including water supply pipelines and canals, water resources systems, levees, and roads; preparation and monitoring of field exploration programs; preparation of specifications, drawings, and contracts; and construction support for specialized foundation testing.

Registered geologist, MP, with over 30 years' experience in the full range of regional projects and programs. Experience includes design and implementation of geologic exploration programs for a wide range of water resources projects and oversight of ground-water investigations throughout California.
Special projects coordinator, MP, with extensive experience in water resources planning, including technical writing. Experience includes overall management of the Section 1135 Program ("Project Modifications for Improvement of the Environment"), Sacramento District, Corps of Engineers; program includes environmental restoration of Prospect Island.
Chief of Surveying and Photogrammetry, MP, with over 20 years' experience in surveying, photogrammetry, and aerial mapping. Capabilities include use of latest Global Positioning System equipment.
Technical specialist, TSC, in hydrology, sedimentation, and river hydraulics. Involved in water conservation planning and analysis of rivers for fish and wildlife resource impact assessments, and sediment data collection and analysis. Prior experience with FWS for analysis/correction of regional NWR water-related concerns including wetland impacts and concerns. Research on restoration of riparian and aquatic habitats in Upper Colorado River Basin, and coauthor of UNESCO test on Environmental Aspects of Sedimentation
Senior biologist and project manager, TSC Ecological Planning and Assessment Group, including technical consultant in fisheries, aquatic ecology, and wetland management. Extensive prior experience includes Project Manager for wetland creation and preservation projects, Corps of Engineers; fishery research biologist, Everglades National Park, and fisheries biologist, Colorado River Fisheries Project, FWS.
Environmental specialist, MP, extensive experience in environmental resources and engineering with Corps of Engineers. Projects include planning for New Castle County, Delaware, Water Supply Project and EIS; participation in interagency effort to assess Tulpehocken Creek Watershed, PA, and identify water quality concerns and solutions; and development of EA's and application of non-structural and environmental restoration alternatives for floodplain enhancement, associated with "1997 Flood Recovery, PL 84-99 Levee Rehabilitation Program, CA."
Chief of Construction Contract Branch, MP, with extensive experience in all aspects of Federal contracting.
Appraiser and chief of MP Land Resources Branch, with over 20 years' experience in appraisal and acquisition of a broad range of property types. Supervised Reclamation's acquisition of Prospect Island.
Landscape architect and environmental planner with 18 years' consulting experience, and management/direction over 60 assignments for Federal, State, local governments, private landowners, scientific organizations and industry. Experience includes Principal Investigator for Cascade Range Reservoir Management Plan (ID), New Melones Reservoir Resource Management Plan (CA); and Principal-in-Charge of scoping report for Central Valley Project Consolidated and Expanded Place of Use EIR.

Francisco Jose Marques Simoes, Ph.D.	Sedimentation and River Hydraulics Group, TSC, and Associate Professor at Center for Computational Hydroscience and Engineering, University of Mississippi. Extensive experience in numerical modeling of large-scale free surface flows, including turbulence modeling, sedimentation processes, pollutant transport, and water quality. Publication of several articles in distinct areas, including open channel hydraulics.
Eric A. Stiles	Project coordinator, technical specialist, and research scientist, TSC, for water and wastewater treatment, watershed planning, and aquatic, wetland, and riparian restoration. Projects include Tres Rios, Veterans Park, Eastern Municipal Water District, City of Nogales (design and construction of multipurpose wetlands), and Minidoka Project (wetlands for water quality enhancement and wildlife habitat). TSC specialist in wetland bio-chemical processes and design for water quality.
James West, Ph.D.	MP Region archeologist, with extensive experience across the broad base of regional projects and programs.
Lawrence H. White	Wildlife staff specialist, TSC, providing technical assistance in environmental compliance and water-related resource management. Planned and conducted riparian inventory of 150 miles along Salines River (CA) and developed long-term monitoring plan of riparian habitat; participated in development of "Middle Rio Grande Ecosystem: Bosque Biological Management Plan," including lead in recommending management practices to sustain and enhance value of key wildlife habitats; currently working on model to predict riparian vegetation responses to changes in fluvial hydrology within key riparian habitat on Rio Grande in New Mexico.
Chih Ted Yan, Ph.D.	Manager, Sedimentation and River Hydraulics Group, TSC, and professor associated with Colorado State University and University of Colorado. Publication of over 100 articles and 2 books on sedimentation, river mechanics, river morphology, hydraulics, hydrology, and water resources engineering. Has served as expert consultant and advisor on water resources projects at the request of the United Nations, World Bank, and U.S. and overseas government agencies.
Willows Construction Office (CA)	Directs preconstruction, onsite construction management, and construction contract administration for Reclamation's Mid-Pacific Region throughout California, Nevada, and southern Oregon. Provides a seasoned experience base (447 years) and maintains a diverse cadre of technical competence, including project construction engineer, health and safety manager, contracting officer, field engineering division, office engineering division, budget analyst, and administrative support staff. Projects include fish facilities, wildlife mitigation and enhancement, environmental restoration, and fish-screening facilities.

## VI. Compliance with Standard Terms and Conditions

The Bureau of Reclamation has reviewed the terms and conditions as stipulated under this RFP and agrees with those conditions. Reclamation will comply with standard clauses/proposal requirements prior to signing a formal contract.

